What's New?

Updated ~~December 2014~~March 2015

With support from the City of Columbia Falls and the State of Montana, the U.S. Environmental Protection Agency (EPA) has proposed to add the Anaconda Aluminum Company's Columbia Falls Aluminum Reduction Plant (also known as Columbia Falls Aluminum Company Plant) near Columbia Falls, Montana to the National Priorities List (NPL). Adding the site to the National Priorities List would make it eligible for comprehensive investigation and cleanup resources under EPA's Superfund program.

The Superfund law providesguarantees the public an opportunity to participate throughout the Superfund process. EPA is requesting public comments on the proposed Superfund listing for 60 days after publication in the Federal Register.

Records used in making this proposal Superfund listing~~decision~~ are available at the following locations:

ImagineIF Library – Columbia Falls
130 6th Street West
Columbia Falls, MT 59912
406-892-5919
Hours
Monday: 10 am – 6 pm
Tuesday – Wednesday: 10 am – 7 pm
Thursday: 10 am -6 pm
Friday: 12 pm – 6 pm
Saturday: 12 pm – 4 pm
Sunday: Closed

U.S. Environmental Protection Agency
Region 8 Headquarters
Records Center
1595 Wynkoop Street
Denver, CO 80202
303-312-6473
Hours
Monday – Friday: 9 am – 4 pm

Comments are due no later than 60 days from the date of publication in the Federal Register. Comments may be submitted by using one of the following four methods:

1. Go to www.regulations.gov and follow the online instructions for submitting comments using FDMS Docket # EPA-HQ-SFUND-2015-0139.

2. For written comments, please send the original and three copies to the following address:
   Docket Coordinator, Headquarters
   U.S. Environmental Protection Agency
   CERCLA Docket Office (Mail Code – 5305T)
   1200 Pennsylvania Avenue, NW
   Washington, DC 20460

3. For hand delivery or express mail, please send the original and three copies to the following address:
   Docket Coordinator, Headquarters
   U.S. Environmental Protection Agency
   CERCLA Docket Office
   1301 Constitution Avenue, NW
   EPA West, Room 3334
   Washington, DC 20004
   (8:30 am – 4:30 pm Mon – Fri)

4. By email at superfund.docket@epa.gov

Commented [PR1]: Once we get a final date, we should insert it here.

Commented [PR2]: I still need to confirm these are accurate

~~**DEQ, EPA to update public on cleanup process for the Columbia Falls Aluminum Company Plant**~~

~~The Montana Department of Environmental Quality (DEQ), in coordination with EPA, will hold a meeting on December 11, 2014, to inform the public on the current status and next steps in addressing contamination at the Columbia Falls Aluminum Company (CFAC) plant in Columbia Falls, Montana. The public meeting will be held from 6 to 8 p.m. on Thursday, December 11, 2014, at the Little Theater at Columbia Falls High School, located at 610 13th Street West in Columbia Falls. Meeting topics will include a summary of recent discussions with CFAC/Glencore regarding the Administrative Order on Consent prepared by DEQ,~~

~~an update from EPA on additional sampling efforts and the next steps in the cleanup process.~~

~~For more information regarding the CFAC site, please contact Rob Parker(parker.robert@epa.gov), EPA Site Assessment Manager, at 303-312-6664, or Jenny Chambers (jchambers@mt.gov), DEQ Remediation Division Administrator, at 406-841-5001.~~

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Site Description

The aluminum reduction plant began production in 1955, operated by the Anaconda Copper Mining Company. Aluminum was produced at the facility using the Hall Heroult process. The plant ceased production in 2009.

Multiple potential sources, including landfills and percolation ponds, are located at the facility. A byproduct of the aluminum reduction process is spent potliner material, which is known to contain cyanide and flouride compounds that can leach into ground water. Spent potliner material was disposed on site from approximately 1955 to approximately 1985. Other landfills and ponds have been used for various waste streams throughout the lifespan of the plant.

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Potential Site Risks

Media Affected	Contaminants	Source of Contamination
Percolation Ponds (pond water and sediment)	cyanide; fluoride; semi-volatile organic compounds; metals, including aluminum, cyanide, arsenic, chromium, copper, iron, lead, magnesium, manganese, nickel, sodium, vanadium, zinc; pesticides; Arochlor-1254	aerial deposition; ponds received process fluids that have since (partially) evaporated or percolated
Ground water on-site down-gradient of landfill source areas	cyanide; fluoride, metals, including aluminum, arsenic, cyanide, chromium, copper, iron lead, iron, nickel, selenium, vanadium, fluoride, nitrate/nitrite	leaching from landfills and sludge pond complex, percolation ponds, and potentially other unknown sources
Cedar Creek and Flathead River	cyanide; fluoride; metals, including copper, cyanide, manganese, fluoride, potassium, sodium, zinc	gGround water infiltration; ground water seeps

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Commented [CM3]: This list is not as comprehensive as the one under the narrative for Percolation Pond Sources. Arsenic, chromium, copper, magnesium + sodium are missing from the table but included in the narrative. Do they need to be added?

Commented [PR4R3]: I added these to the table

Commented [CM5]: This list is also not the same as the narrative for Ground Water Migration Pathway below. Iron nickel, selenium, vanadium; and nitrate/nitrite are listed in the table but not in the narrative.

Commented [PR6R5]: This should be a described as the groundwater down gradient of the landfill sources specifically which corresponds to the Landfill sources narrative. Thanks for pointing this out as the media description needed clarification.

Commented [CM7]: This list is also not the same as the narrative for Surface Water Migration Pathway. Potassium (Cedar Creek) and sodium + zinc (Flathead River) are listed in the narrative but not in the table.

Commented [PR8R7]: I added these to the table.

Investigation Results

A site Site reassessment Reassessment was completed for the Columbia Falls Aluminum Reduction Plant site in April 2014. The EPA collected environmental samples in September and October 2013 as part of the Site Reassessment. Results from that report are summarized here. The full report for this investigation is available in Site Documents below. The assessment and report is organized such that potential sources are evaluated to determine potential associated contaminants and then compared to analytical results for potential receptors, including surface water features and ground water down gradient of the source areas.

Landfill Sources – Samples were not directly collected from landfills at the site ~~in order~~ to avoid~~prevent~~ compromising the integrity of the covers. In lieu of direct sampling, EPA sampled monitoring wells previously installed in locations down-gradient and up-gradient of the landfill and sludge pond sources to determine if contaminants ~~are~~ have been released to ground water. ~~EPA compared the down-gradient sample results to up-gradient, background concentrations in order to determine if contaminants are significantly elevated compared to background conditions. For the purposes of this investigation, an observed release is documented if the down-gradient concentration for a particular contaminant is at least three times the background concentration. The following is a list of contaminants that have met the observed release criteria, which document an elevated contaminant concentration above background conditions:~~Multiple contaminants were detected in ground water above background concentrations including cyanide, fluoride, and metals, such as aluminum, arsenic, chromium, copper~~, cyanide~~, iron, lead, nickel, selenium and vanadium, among others~~,; fluoride; and nitrate/nitrite as N.~~

Percolation Pond Sources – Waste sediment and surface water samples were collected from two percolation ponds for a common hazardous constituent analysis to determine contaminants present in the ponds at the site. ~~The following is a list of contaminants determined to be present in percolation pond sources:~~ Multiple contaminants were detected in the water and sediment samples including cyanide, fluoride, semi-volatile organic compounds, such as anthracene, benzo(a)pyrene, chrysene, fluoranthene, and pyrene, among others; metals, including aluminum, arsenic, chromium, copper, ~~cyanide,~~ iron, lead, magnesium, manganese, nickel, sodium, vanadium and zinc, among others; and pesticides~~; and fluoride~~.

Ground Wwater Migration Pathway – As discussed previously, landfill sources were indirectly evaluated by comparing down-gradient ground water samples to up-gradient, background ground water samples. This evaluation confirms that contaminants discussed previously have been released to ground water at the site. Ground water samples collected from monitoring wells at the facility contained multiple contaminants including cyanide, fluoride, arsenic, chromium,

lead, and selenium with concentrations above federal drinking water standards. AlthoughWhile it should be noted that the ground water at the facility is not used for drinking purposes, the ground water has the potential to migrate.

Three rounds of domestic well sampling have occurred. As part of the Site Reassessment sampling event conducted in September and October, 2013, Five residential wells were evaluated to determine if ground water near the facility has been impacted. Cyanide was detected in one well southwest of the facility and another one well to the north of the facility. The detections of cyanide were below EPA's Maximum Contaminant Levels (MCL) and the State of Montana's Numeric Water Quality Standards. When compared to EPA's Risk Based Screening Levels, however, the concentrations of cyanide in both water samples were higher than the EPA Tapwater Risk Based Screening Level. The screening concentration is a conservative value that EPA considers to be protective for humans over a lifetime. Exceeding these values does not necessarily indicate that a health affect will occur, but that a more detailed assessment may be warranted. No other contaminants were detected above the regulatory benchmarks or risk-based screening levels in residential wells during the first round of sampling. As part of subsequent sampling events, in April 2014 and November 2014, 20 residential wells and 10 residential wells, respectively, were sampled. For all residential wells in both subsequent sampling events, there were not any contaminants detected above the regulatory benchmarks or risk-based screening levels, including cyanide.

Surface Water Migration Pathway – Surface water and sediments from the Flathead River and Cedar Creek were collected for a common hazardous constituent analysis. Similar to the ground water analysis, downstream samples were compared to background samples to determine if there is an observed release of any contaminants. In Cedar Creek, there were observed releases of copper, cyanide, and potassium. In Flathead River, there were observed releases of cyanide, manganese, sodium, zinc, and fluoride.

This stretch of the Flathead River is believed to be used by anglers. Fish tissue samples were not collected as part of the site reassessment. With the limited

amount of data captured as part of this sampling event, it is unknown if bioaccumulation of these contaminants is a concern.

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Next Steps

After proposal to the National Priorities List, there will be a 60-day comment period. At the close of the comment period, EPA will review and respond to all pertinent comments. A final decision regarding adding the Ssite to the National Priorities List will be documented in a subsequent Federal Register notice. The earliest the Anaconda Aluminum Company Columbia Falls Reduction Plant site could be finalized on the National Priorities List would be in the Ffall of 2015.

The Remedial Investigation/Feasibility Study (RI/FS) is the next phase of the Superfund process. The objectives of the RI/FS are to determine the nature and extent of contamination at the site, test whether certain technologies are capable of treating the contamination, and evaluate the cost and performance of technologies that could be used to clean up the site. Community involvement during the RI/FS is highly encouraged. For information on how to get involved, visit www.epa.gov/superfund/community.

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Site Documents

Columbia Falls Site Reassessment Report, April 4, 2014

Federal Register Notice of National Priorities List, Proposed Rule No. XX

Letters supporting NPL proposal from Montana Governor Bullock, U.S., and Columbia Falls Mayor Barnhart

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